We claim:

1. A system for interconnecting Fibre Channel Arbitrated Loop Devices employing the Fibre Channel Arbitrated Loop protocol including the access fairness algorithm, comprising:

a plurality of Fibre Channel Arbitrated Loop ports each including port logic,

a route determination apparatus,

a connectivity apparatus, and

logic implementing predefined loop control criteria to enforce fairness in addition to the access fairness algorithm.

2. A system for interconnecting Fibre Channel Arbitrated Loop Devices of claim 1, wherein the fairness logic serves to limit the number of times a connected device opens another device.

3. A system for interconnecting Fibre Channel Arbitrated Loop Devices of claim 2, wherein the fairness logic serves to limit the number of times a connected device sequentially opens another device.

4. A system for interconnecting Fibre Channel Arbitrated Loop Devices of claim 1, further including a counter to count the number of opens.

5. A system for interconnecting Fibre Channel Arbitrated Loop Devices of claim 4, wherein the counter counts sequential opens.

6. A system for interconnecting Fibre Channel Arbitrated Loop Devices of claim 1, wherein the logic proactively closes a device.

7. A system for interconnecting Fibre Channel Arbitrated Loop Devices of claim 1, wherein the ports are assigned different access priorities.

8. A system for interconnecting Fibre Channel Arbitrated Loop Devices of claim 1, wherein when a port is granted a connection due to the receipt of an OPN, it is moved to the bottom of the list and the lower priority ports are moved up toward the top of the list.

9. A system for interconnecting Fibre Channel Arbitrated Loop Devices of claim 1, wherein priority levels of fairness are predefined.

10. A system for interconnecting Fibre Channel Arbitrated Loop Devices of claim 9 wherein the predefined levels of fairness include a higher level which wins loop arbitration before the lower levels.

11. A system for interconnecting Fibre Channel Arbitrated Loop Devices of claim 9 wherein the predefined priority levels are separate from the Fibre Channel Arbitrated Loop address priorities.

12. A system for interconnecting Fibre Channel Arbitrated Loop Devices of claim 1, wherein fairness is enforced in a string cascade architecture.

13. A system for interconnecting Fibre Channel Arbitrated Loop Devices of claim 12 wherein the fairness is enforced in part where a device wins an arbitration when an ARB has traveled between the switch and the interconnected switches on the string.